

REMARKS

Claims 1-25 are currently pending in the patent application. Of these claims, only claims 1, 12, and 23 are independent claims. Claims 2-11, 13-22, and 24-25 respectively depend from these claims. Claims 1, 5-12, and 15-25 are rejected under the judicially created doctrine of obviousness-type double patenting. Claims 1-3, 5-14, and 16-25 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,215,697 (“*Demetrescu*”). Claims 4 and 15 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,720,294 (“*Skinner*”). Applicant respectfully requests allowance of all the pending claims in view of the subsequent remarks regarding the above-mentioned independent claims.

I. Remarks re non-statutory double patenting rejection

Claims 1, 5-12, and 15-25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 7,076,288. Applicants respectfully disagree. However, in an effort to expedite prosecution, applicants submit with this Response a Terminal Disclaimer in compliance with 37 C.F.R. § 1.321(c) relative to U.S. Patent No. 7,076,288. It is believed that this obviates the present rejection pursuant to M.P.E.P. § 804.02.

II. Remarks re 35 U.S.C. §103 rejections

In the Office Action mailed August 8, 2006 (“Office Action”), claims 1-3, 5-14, and 16-25 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Demetrescu*. Claims 4 and 15 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Skinner*.

For a *prima facie* case of obviousness, there must be a motivation to modify the reference or combine reference teachings, **and** the cited references must teach or suggest all of the claim limitations **with** a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). In order for a reference to be effective prior art under 35 U.S.C. § 103, it must provide a motivation whereby one of ordinary skill in the art would be led to do that which the applicant has done. See *Stratoflex Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1535, 218 USPQ 871, 876 (Fed. Cir. 1983). The Patent Office has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness, which can be satisfied only by showing some objective teaching in the prior art would lead one to combine the relevant teachings of the references. See *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988). It is axiomatic that in order for a *prima facie* case of obviousness to be properly presented, a motivation to combine the references either must exist expressly or implicitly. See *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998).

Demetrescu does not render independent claims 1, 12, or 23 obvious for at least the reason that all the claim limitations have not been met. *Demetrescu* discloses an aperiodic analysis system, as for the electroencephalogram. More specifically,

the present invention is directed to a system whereby EEG information is **decoded** and **presented** in a concentrated format indicated above, so as to preserve the individual characteristics of the waves or waveform components. In that sense, the characteristics of the waveform which have been important for classic and traditional wave analysis are preserved in the display.

Emphasis added, See Col. 2, lines 49-56. *Demetrescu* discloses a display that is “a three-dimensional representation with each wave represented by a line that extends in one dimension to indicate amplitude. The position of the line in another dimension indicates the

period or equivalent frequency, and its position in the third dimension indicates the time of occurrence of the wave.” *See* Abstract and FIG. 2. In other words, this reference discloses an system that produces a display indicative of electromagnetic wave attributes (*e.g.*, amplitude, period, or time of occurrence). Essentially, *Demetrescu* provides a system that allows for display of a large amount of EEG data in a compact format.

A. Claims 1 and 23

In rejecting claims 1 and 23, the Office Action on page 3 specifically references the portion of the *Demetrescu* description describing EEG spike detection, contained in col. 11, lines 30-61. This portion of *Demetrescu* teaches that an “EEG input signal is first differentiated by a differentiator 112, the output of which is applied to five distinct comparator circuits 114, 116, 118, 120, and 122.” *See* Col. 11, lines 31-34. In this step, *Demetrescu* teaches determining a slope of an EEG signal, in this case $\mu\text{V}/\text{sec}$. The determined slope is then provided to comparator circuits. “The comparators operate with respect to different predetermined levels of slope for the differentiated value of the EEG.” *See* Col. 11, lines 34-36. “As the differentiator 112 provides an output which is proportional with the slope of the input signal, the comparators 114, 116, 118, 120, and 122 are simple amplitude or threshold circuits to provide a binary signal, the high level of which is indicative of a predetermined degree of slope in the EEG.” *See* Col. 11, lines 52-57.

The function of the *Demetrescu* comparators is to determine if the slope of the EEG signal (provided by the differentiator) is larger than, or smaller than, a predetermined value. If the slope meets the threshold requirement of a comparator, the system determines if the signal having that slope continues for a certain period of time to ensure that the EEG signal is increasing (or decreasing) long enough to attain an amplitude that could be associated with a

spike. "The separate comparators are employed to enable the use of separate time-test circuits so as to accommodate the imposition of different time criteria for testing the occurrence of a spike in accordance with the standards indicated above." See Col. 11, lines 57-61.

Ultimately, in *Demetrescu*, if the EEG signal maintains the slope that met the predetermined value for a sufficient time, the system will determine if the signal was sufficiently isolated in time to increase the probability that the EEG signal is a spike.

The comparator 114 is connected directly to an "and" gate 126 and additionally is connected to that gate through an amplifier 128 and a single shot 130. The single shot 130 consists of a monostable multivibrator providing the low state of a binary signal as an output, except when an input triggers the single shot to provide the binary output at a high level for a predetermined interval. As designated, the interval of the single shot 130 is five milliseconds. The output from the gate 126 is provided to a single shot 132 which is in turn connected to an "and" gate 134 which supplies the trigger signal T indicative of a spike.

See Col. 11, lines 62-68 through Col. 12, lines 1-5.

At no point in *Demetrescu* is a determined slope set equal to a predetermined threshold value as recited in claims 1 and 23 of the present application. Further, Applicant respectfully disagrees with the Office Action on page 5 where it states the "slope of the input signal as disclosed in *Demetrescu* does appear to be determined and used in a sufficiently similar manner to conclude that it is obvious to determine whether a slope is less than a predetermined value."

In fact, if the system of *Demetrescu* were to implement the limitation of setting a slope equal to a threshold value as currently claimed, the system of *Demetrescu* would no longer serve its intended purpose. In the description of the EEG spike detection as described above and in *Demetrescu*, if one of the comparators 116, 118, 120, or 122 were to set the determined slope of an EEG signal equal to the threshold value of the comparator, it would significantly reduce the

ultimate amplitude of the potential spike. If comparator 114 were to determine that the slope was either less than $-800 \mu\text{V}/\text{sec}$ or greater than $+800 \mu\text{V}/\text{sec}$, which predetermined value would the slope be set to? -800 or $+800$? Also, as seen in FIG. 8, an output is required from at least four comparators. If the slope were constantly set to the predetermined threshold value of one comparator, it is possible that none of the other comparators would ever provide an output indicating a spike to the spike trigger 134. For example, if an EEG signal had a slope of $+2200 \mu\text{V}/\text{sec}$, would the slope be set to $+800$ by comparator 114 or $+2000$ by comparator 116? In either case, the slope would be prevented from reaching the $+3000 \mu\text{V}/\text{sec}$ required to generate an output from comparator 122, ultimately preventing the EEG signal from being correctly identified as a spike and displayed as such.

Furthermore, setting a determined slope equal to a predetermined value runs contrary to the teachings of *Demetrescu* as *Demetrescu* seeks to provide an easy to read display of a large quantity of EEG data. If the amplitudes of potential spikes are prematurely reduced as part of the system, the display system has little utility, as the spike might be discarded as noise or as a non-spike wave. Not only does *Demetrescu* fail to disclose setting a determined slope equal to a predetermined threshold value, *Demetrescu* specifically teaches away from altering the slope, less the ultimate EEG display be misleading.

Additionally, the contributions provided by the present application are not made obvious in light of what was known to one of ordinary skill in the art. The detection of a slope in the *Demetrescu* system, which is used to identify a spike in an EEG data stream, is very different than the detection of a slope in the present application. The present application can determine the “degrees of freedom” of an entire EEG data stream with a PD2i algorithm. The slope (dV/dt)

running **through** a time series in *Demetrescu* is unrelated to the slope (PD2i) of a correlation integral of the **whole** time series as used in the present application. While both *Demetrescu* and the present application utilize detection and comparison of a “slope,” the definitions of the slopes are very different. The Applicant respectfully puts forth that it is unreasonable to state that because one has knowledge about the use of slope in dV/dt , that it would be obvious to one skilled in the art how to use a slope in the correlation integral of the PD2i. The comparing of this slope to a threshold value and setting that slope equal to the threshold value is neither taught by *Demetrescu* nor made obvious by *Demetrescu* and would not have been developed based on what is taught in *Demetrescu*.

Applicant respectfully requests withdrawal of this rejection.

B. Claim 12

In rejecting claim 12, the Office Action on pages 3 and 4 specifically references the portion of the *Demetrescu* description describing EEG spike detection, contained in col. 11, lines 30-61, described in detail above, and the portion of *Demetrescu* describing the reasoning behind time testing, contained in col. 12, lines 37-42. *Demetrescu* does not teach determining if a data series is within a predetermined range and subsequently dividing the data series by a predetermined number as recited in claim 12. This limitation is directed at reducing noise in the data series. The Office Action on page 4 addressed this limitation by referring to the “selectivity of comparator 116” in *Demetrescu*. *Demetrescu* is referring to a property of an EEG spike. If an EEG signal does not maintain the slope above (or below) the comparator threshold for a predetermined period of time (for example, time test 144), then the EEG signal will not achieve

an amplitude necessary to be deemed a spike, and can be discarded as a short wave, in other words, random noise.

Nowhere in the disclosure of *Demetrescu* is taught the dividing of a data series by a predetermined number to reduce noise. Furthermore, this noise reduction technique provided by the present application is not made obvious in light of what was known to one of ordinary skill in the art. To illustrate how this limitation is not obvious to one skilled in the art, reference is made to the present application in the context of electrocardiogram data and arrhythmic death. Figure 3 of the present application illustrates the examination of low-level noise in the background of R-R interval data (RR) obtained from an electrocardiogram (ECG). This is a representative illustration of what is exhibited in the subsequent figures and tables. Figure 3 shows a magnified portion of a 15-minute RR interval series made from the ECG. Exhibited on the same +10 to -10 integer scale are two 20 heartbeat series; the bold series is within the +/-10 limits and is marked OK, whereas the non-bold series shows excursions of the noisy background that exceed these limits.

The present application provides a method for noise reduction based on what is observed in 20-Heartbeat windows. If a 20-beat noise amplitude is OK, then the 15-min RR data series is not divided by a predetermined number, and if the 20-beat noise exceeds the stated limit, then the data series is divided by a predetermined number. In other words, if the predetermined number is two, a noise-bit is removed (i.e., the amplitude for the entire data series is reduced by 50%).

Tables 1A and 1B show the effects of dividing a data series by a predetermined number of two for the PD2i of heartbeats in the prediction of Arrhythmic Death (AD and non-AD). This is shown with other linear and nonlinear algorithms that have been used for the analysis of

interval data. It is clear that PD2i, using the noise reduction technique of the present application, is far superior to other algorithms used previously in the field to predict arrhythmic death, as it has high statistically-significant Sensitivity (SEN) and Specificity (SPE) in all cardiac subgroups. The noise reduction method accomplished by dividing a data series by a predetermined number is neither taught by *Demetrescu* nor made obvious by *Demetrescu* and would not have been developed based on what is taught in *Demetrescu*.

Accordingly, Applicant respectfully requests withdrawal of this rejection.

C. Claims 1, 12, and 23

In rejecting claims 1, 12, and 23, the Office Action on page 3 specifically references the portion of the *Demetrescu* description describing EEG spike detection, contained in col. 11, lines 30-61 and described in detail above. *Demetrescu* does not teach using the data series to detect or predict the onset of a cerebral disorder, as recited in claims 1, 12, and 23. The Office Action states on page 3 that the:

separate comparators are usable to enable separate time-test circuits to accommodate the imposition of different time criteria for testing the occurrence of a spike in accordance with the standards to indicate the onset of a cerebral disorder.

This describes the ability of the *Demetrescu* system, through the use of multiple comparators with multiple time tests, to accurately discern if an EEG signal is a spike. This is not the same as teaching the use of a data series to “detect or predict the onset of the cerebral disorder” as recited in claims 1, 12, and 23 of the present application.

Demetrescu does not teach the use of a data processing routine (for example, the PD2i), to create a data series usable to detect or predict anything, to include a cerebral disorder.

Demetrescu's teachings are directed toward displaying large quantities of EEG signals in a compact format. The use of the data series in *Demetrescu* is described in col. 17, lines 62-68,

a system of FIG. 1 as disclosed above will develop a static image, stored on the storage tube display 18 which is in the form described with reference to FIG. 2. Using a variety of well known structures as the hard-copy unit 20, the image or picture may be reproduced on a sheet of paper to provide a permanent record. Of course, as explained above, the picture is a considerably more perceivable form for a significant amount of EEG data. As a consequence, neurologists and other persons may perceive an analysis of the EEG by reviewing a few sheets rather than to scan through a considerable length of the EEG as a recorded waveform.

Essentially, the data series of *Demetrescu* are displayed on a screen or printed out for later viewing by a neurologist. Therefore, *Demetrescu* does not teach, nor render obvious, the limitation of "using the data series to detect or predict the onset of the cerebral disorder."

Furthermore, the contributions provided by the present application are not made obvious in light of what was known to one of ordinary skill in the art. The display output in the *Demetrescu* system simply highlights the location of likely epileptogenic spikes in an EEG signal so that a clinician can later diagnose epilepsy. This display can not inform a clinician skilled in the art about the number of "degrees of freedom" in the EEG at that moment, as in the present application. "Spike location" can not predict "degrees of freedom," as they are completely unrelated entities, with the latter utilizing a correlation integral which is not utilized by the former. The present application can suggest how many independent generators are involved in the genesis of any biological signal at each moment in time (i.e., the time-dependent degrees of freedom). Applicant respectfully puts forth that this information simply would not be obvious to one skilled in the art from examination of the *Demetrescu* system. The use of the data series to

predict the onset of a cerebral disorder is neither taught by *Demetrescu* nor made obvious by *Demetrescu* and would not have been developed based on what is taught in *Demetrescu*.

Applicant respectfully requests withdrawal of this rejection.

D. Claims 4 and 15

In the Office Action, Claims 4 and 15 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Demetrescu* in view of *Skinner*. Since this obviousness rejection only applies to these dependent claims and the Applicant asserts that all independent claims are allowable in light of the arguments included herein, then dependent claims 4 and 15 are allowable. Therefore, the Applicant respectfully requests withdrawal of this rejection.

E. No Motivation to Modify

The Federal Circuit has addressed situations in which an obviousness rejection is made based on a single reference, which occurs here. For example, the Federal Circuit ruled in *In re Kotzab*, 55 U.S.P.Q.2d 1313 (Fed. Cir. 2000), that:

Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. *See B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp.*, 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996). . . . Whether the Board relies on an express or an implicit showing, it must provide particular findings related thereto. *See Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. Broad conclusory statements standing alone are not "evidence."
Id.

55 U.S.P.Q.2d at 1316-17. *See also WMS Gaming, Inc. v. International Game Tech.*, 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999); *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981) (and cases cited therein).

As another example, the Federal Circuit considered the obviousness of a claimed invention based on a single prior art reference in *Kolmes v. World Fibers Corp.*, 41 U.S.P.Q.2d 1829, 1833 (Fed. Cir. 1997):

World also argues that a prior patent of the same inventors, U.S. Patent 4,777,789, disclosed a rate of 2-24 turns per inch, which encompasses the claimed range [of 8-12 turns per inch]. World apparently argues that one skilled in the art would have known to modify that disclosed wrapping rate to that claimed in the '948 patent. Kolmes responds that *World showed that there was no motivation to modify the invention disclosed in the '789 patent. We agree.* The '789 patent discloses the use of wire in addition to non-metallic fibers, and *World has shown no suggestion or motivation to modify the teaching of the '789 patent with regard to non-metallic fibers. Hence, it failed to prove that the invention would have been obvious in light of the '789 patent. See ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984) ("Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination."). Accordingly, the district court did not err in holding that the '948 patent is not invalid on the ground of obviousness.

41 U.S.P.Q.2d at 1833 (emphasis added).

Applying these legal standards to the outstanding rejection here, the Applicant respectfully submits that the rejection cannot stand at least because there is no motivation to modify the *Demetrescu* disclosure to set a slope to a predetermined value after a threshold determination, to divide a data series by a predetermined number, or to use a data series to detect or predict the onset of a cerebral disorder. The Office Action recites sections of the MPEP directed to motivation to modify a reference in the context of genus/species. The Office Action states:

It is the properties and utilities that provide real world motivation for a person of ordinary skill to make species structurally similar to those in the prior art. *Dillon*, 919 F.2d at 697, 16 USPQ2d at 1905; *In re Stemniski*, 444 F.2d 581, 586, 170 USPQ 343, 348 (CCPA 1971). The prior art need not disclose a newly discovered property in order for there to be a *prima facie* case of obviousness. *Dillon*, 919 F.2d at 697, 16 USPQ2d at 1904-05 (and cases cited therein). The slope of the input signal as disclosed in *Demetrescu* does appear to be determined and used in a sufficiently similar manner to conclude that it is obvious to determine whether a slope is less than a predetermined value. If the claimed invention and the structurally similar prior art species share any useful property, that will generally be sufficient to motivate an artisan of ordinary skill to make a claimed species.

See Office Action, pages 4-5. Applicant notes that there must be a suggestion or motivation to modify the teachings of *Demetrescu* for the rejection to be viable pursuant to Federal Circuit rulings. See, e.g., *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000). Such a suggestion or motivation does not exist.

Applicant realizes that it is difficult to draw an analogy from the chemical arts to the electronic arts with genus/species motivation to modify analysis, however, there remains no basis for concluding that *Demetrescu* can be modified to produce the subject matter recited in claims 1, 12, or 23 based on the knowledge of one skilled in the art.

Applicant puts forth that *Demetrescu* does not teach a species similar to that of the present application. *Demetrescu*, as described in detail above, is directed towards display of EEG data in a compact format. The present application is not concerned with display of EEG data in a compact format, but rather the use of processed EEG data to detect or predict the onset of a cerebral disorder. The present application and *Demetrescu* are not in the same genus.

Even if it could be found that *Demetrescu* discloses a species similar to the present application, there can be no motivation to modify based on structural similarities, shared

properties or utilities. Applicant puts forth that structural similarity, as used in the chemical arts, refers to the structure of a molecule or compound. If obviousness were to be found when structural similarities exist in the electronic arts, then that would render the majority of electronic and software inventions obvious. The majority of electronic and software inventions share similar structure by having a processor, a memory, a display, etc...

Molecules or compounds in the chemical arts, if found to have similar properties or utilities, can be made obvious. The Applicant understands from the Office Action that, in the present case, the similar "property" is a slope and that the slope of *Demetrescu* and the slope of the present application are used in a similar manner, the similar manner being the determination if the slope is less than a predetermined value. However, this type of comparing two numbers is not what the Applicant claims as an invention. Comparing two numbers cannot be used to render one invention obvious over a dissimilar invention, else the majority of electronic and software inventions would be obvious, since number comparison has been in existence for quite some time. What is not obvious is what the Applicant does with the slope **before** and **after** the determination of whether the slope is less than a predetermined value.

The MPEP §2144.08 II A 4(d) states that when determining whether a obviousness exists:

consider any teaching or suggestion in the reference of a preferred species or subgenus that is significantly different in structure from the claimed species or subgenus. Such a teaching may weigh against selecting the claimed species or subgenus and thus against a determination of obviousness. *Baird*, 16 F.3d at 382-83, 29 USPQ2d at 1552

Demetrescu teaches that it is preferred to **not** alter a determined slope. “[T]he EEG is translated to a form which **preserves the characteristics** traditionally recognized by neurologists in analyzing EEG's.” Emphasis added. *See* Col. 2, lines 33-36. To that end, to set a determined slope equal to a predetermined value runs contrary to the teachings of *Demetrescu* to “preserve the characteristics” of waves and to provide an easy-to-read display of a large quantity of EEG data. If potential spikes having their amplitudes prematurely reduced as part of the system, the characteristics of the waves are not preserved and the display system has little utility. Not only does *Demetrescu* fail to disclose setting a determined slope equal to a predetermined threshold value, *Demetrescu* specifically teaches away from altering the slope, lest the ultimate EEG display be misleading.

Furthermore, there is no reasonable expectation of success to modify *Demetrescu* to achieve what is presently claimed. *Demetrescu*’s data processing is restricted solely to determination and display of the characteristics of a wave (i.e., amplitude, frequency, etc...). *Demetrescu*’s slope treatment is opposite to that of the present application and there is no disclosed division of a data series by a predetermined number or the use of a data series to detect or predict the onset of a cerebral disorder. Not only would the modifications to the EEG display system of *Demetrescu* be significantly challenging to implement, but there is no indication that the modifications would result in the presently claimed methods and systems with any reasonable expectation of success. As *Demetrescu* stated himself in reference to EEG analysis:

Characteristically, the EEG is a non-periodic, stochastic phenomenon. That is, oscillations in the electrical potential cannot be predicted, consequently only current and past information is available. The absence of recurring patterns in the waveform considerably complicates analysis of the EEG, as for use in diagnosis. However, in spite of the fact that the techniques are

neither simple nor easy, neurologists have established principles and criteria for utilizing the EEG as an effective diagnostic tool.

See Col. 1, lines 10-19. Analysis of EEG signals is a complicated undertaking, significantly diminishing any reasonable expectation of success in modifying a system for displaying EEG signals to perform as a system for detecting or predicting cerebral disorders.

Accordingly, one skilled in the art would not have been motivated to modify *Demetrescu* to arrive at the claimed methods and systems because there is no teaching to make the modification. Nor is there any suggestion of such a design. Thus, a modification to set a slope to a predetermined threshold value, to divide a data series by a predetermined number, and to use a data series to detect or predict a cerebral disorder relies on hindsight reasoning because there is no suggestion or motivation to modify the teaching of *Demetrescu*. See *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) ("Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference."); see also *B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp.*, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996) (same). Such hindsight reasoning has been explicitly rejected by the Federal Circuit. See *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992) ("Here, the Examiner relied upon hindsight to arrive at the determination of obviousness. It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious."). Therefore, independent Claims 1, 12, and 23 are not rendered obvious by this reference.

Applicant respectfully requests withdrawal of this rejection.

III. Conclusion

Claims 1-25 are currently pending in the patent application. Of these pending claims, only claims 1, 12, and 23 are independent claims. Since the Applicant respectfully assert that these independent claims are allowable, dependent claims 2-11, 13, 22, and 24-25 are also allowable. As the Court noted in *In re Fine*, “dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.” 5 U.S.P.Q.2d 1569, 1600 (Fed. Cir. 1988). Thus, Applicant respectfully requests allowance of all the pending claims in view of the subsequent remarks regarding the above-mentioned independent claims.

In order to support a rejection under 35 U.S.C. §103, the Examiner must establish a *prima facie* case of obviousness. Thus, the initial burden of proving obviousness lies with the Examiner. Since the Examiner has not identified in the Office Action a motivation to combine, a reasonable expectation of success, or a teaching/suggestion of all the claim limitations, there can be no finding of obviousness. Hence, claims 1-25 are in a condition for allowance

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Respectfully submitted,

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